

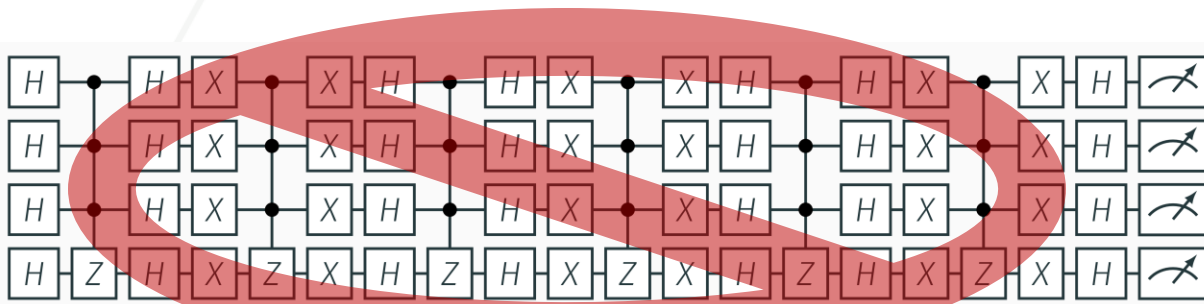
Qwerty: A Basis-Oriented Quantum Programming Language

Austin J. Adams, Sharjeel Khan, Arjun S. Bhamra, Ryan R. Abusaada, Cameron C. Hoechst, Jeffrey S. Young, Thomas M. Conte
TINKER Research Group

<https://github.com/gt-tinker/qwerty>

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Quantum computers promise exponential speedups,
but quantum programming is painful!



Quantum circuit (prior languages)
Tedious, like writing classical assembly



'p' [N] >> - 'p' [N]

Qwerty (our language)

Successful & expressive

Our compiler compiles Qwerty to circuits

Rough Project Ideas

1. Increase test coverage from ~35% to 80%
2. Beta test and improve error messages
3. Upload qwerty package to PyPI
4. Work on Qwerty interpreter
5. Work on rewriting Qwerty compiler frontend in Rust

**Our open-source Qwerty compiler synthesizes efficient
circuits from high-level quantum code**

Source Code:



github.com/gt-tinker/qwerty

Contact: aja@gatech.edu